

Statement of

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General Manager
Snohomish County PUD

Before the
Northwest Energy Caucus
Oversight Hearing on RTO West

March 12-13, 2002

I respectfully submit this statement opposing RTO West on behalf of Snohomish County PUD. This statement is intended to supplement the thoughtful statement presented by Lon Peters, which we have endorsed. I would like to add a few comments and observations for your consideration.

I. ABOUT SNOHOMISH PUD

Snohomish County PUD was formed by a vote of the people of Snohomish County in 1936 based upon the promise of a cost-based, consumer-owned electric power system. The District is the second-largest consumer-owned utility in Washington State and the nation's 12th largest consumer-owned utility. We serve approximately 240,000 residential customers and approximately 23,000 commercial and industrial customers over a system encompassing 5,323 miles of electric lines and a service area of 2,200 square miles in Snohomish County and on neighboring Camano Island.

In the more than five decades since the District has operated as an electric utility, the District has consistently delivered on the promise of cost-based, consumer-owned power, providing its citizen-owners with highly reliable service at rates among the lowest

in the country. In the last two years, however, our ability to continue to deliver on our commitments has been put in jeopardy by California's ill-fated experiment with electricity deregulation, the effect of that crisis on power markets in the Pacific Northwest, and the failure of the Federal Energy Regulatory Commission ("FERC") to take meaningful action to stop the bleeding for many crucial months. The gross market dysfunctions resulting from the crisis produced wholesale electricity prices in the Pacific Northwest that were regularly ten times historic levels and at times more than 100 times historic levels. As a result, during 2001, we were forced to raise our electric rates nearly 60% over 2000 levels. These rate increases have had severe effects on our residential consumers, and have imposed crippling increases in the costs of doing business for many key industries and businesses in our county.

In this climate, we believe it makes no sense to further pursue RTO West. Based upon what we now know about RTO West, our rate analysts believe that our transmission rates could increase somewhere in the neighborhood of 33% over current levels if RTO West is adopted, which means our ratepayers will face an additional cost burden of roughly \$12 million per year. This estimate does not include the costs of new taxes arising from RTO West, which, as discussed below, could be substantial. At a time when our ratepayers are already reeling from huge increases in power costs caused by a failed experiment with electric deregulation, now is simply not the time for another expensive experiment. That is especially true given that the potential benefits of the RTO to our ratepayers appear to be largely illusory.

II. RTO WEST WILL IMPOSE SUBSTANTIAL NEW TAX BURDENS ON NORTHWEST ELECTRIC RATEPAYERS

Snohomish PUD recently retained the law firm Lane Powell Spears Lubersky, LLP, to analyze the potential tax consequences of RTO West. A preliminary analysis has now been completed, which we attach for your reference. It concludes that RTO West will expose BPA assets, which are currently exempt from taxation by virtue of their federal status, to state and local taxes by transferring operational control of the BPA transmission system to RTO West, which is a private, taxable entity.

In total, the analysis estimates that RTO West will be required to pay approximately \$110 million per year in property and leasehold excise taxes in Oregon and Washington because of its control of BPA transmission assets. In addition, the analysis indicates that RTO West will likely make an upfront payment of nearly \$300 million under the Washington sales/use tax in order to avoid continuing payments on the rental value of BPA's transmission assets in Washington. Finally, RTO West is likely to incur approximately \$57.5 million annually in taxes under the Washington Public Utility Tax. While these estimates are necessarily rough, it is interesting to note that our estimate of approximately \$110 million in property tax annually comports closely with an estimate that RTO West would expose BPA assets to approximately \$105 million in annual property taxes made by BPA in August 1999.

I point out that the analysis is confined only to Oregon and Washington tax laws. It is likely that RTO West will also incur taxes on substantial BPA transmission assets in Idaho and Montana. The analysis also does not attempt to estimate the tax burden that would be created by new entities currently proposed by RTO West, such as Scheduling Coordinators and the Paying Agent.

In the RTO West process, BPA has maintained that it will insist on the right to withdraw from RTO West if BPA assets become taxable as a result of joining the RTO. Our analysis suggests that the RTO will almost certainly produce just such a result. We believe it makes little sense to continue to devote time and resources to developing an RTO in the Northwest when it is clear that one of the prerequisites for BPA participation is absent. Further, we believe that BPA's promise that it will withdraw from RTO West substantially underestimates the difficulty of unscrambling the egg once the RTO is launched into operation.

III. THE RTO WEST COST-BENEFIT STUDY IS NOT CREDIBLE

As you know, the RTO West Filing Utilities have retained Tabors Caramanis & Associates ("TCA") to perform a cost-benefit analysis of RTO West. Snohomish PUD retained EES Consulting, Inc. to review and evaluate the TCA study. A copy of EES's analysis is attached for your review. EES concludes, for a variety of reasons, that the TCA study does not produce credible results, primarily because it uses a model that does not reflect the operational reality of the Pacific Northwest.

In short, the TCA model is one that would be appropriate for a centrally-dispatched, thermally-based system, but does not produce meaningful results for the Northwest system, which is hydro-based and not centrally dispatched. Further, the TCA study fails to account for a variety of costs that will arise from RTO West, including the tax issues discussed above, as well as the costs of establishing Scheduling Coordinators, a Paying Agent, and a variety of other new institutions and bureaucracies that are proposed for RTO West.

IV. RTO WEST ENDANGERS COORDINATED OPERATIONS OF THE COLUMBIA RIVER SYSTEM

We have recently become increasingly alarmed that RTO West will become a vehicle for FERC to impose its “standard market design” in the Northwest, a one-size-fits-all regulatory approach that is fundamentally incompatible with the Northwest hydro system. Because the Northwest’s generation system is located mostly on a single river system, operations at one dam necessarily effect operations at other dams and if an operator attempts to optimize the operations of its own hydro plant, it will detrimentally affect operations at other plants by moving water through the system at the wrong time or in the wrong quantities, and the output of the hydro system as a whole will be degraded. Hence, the region’s generation operators have developed a set of voluntary agreements – the Pacific Northwest Coordination Agreement and the Mid-Columbia Hourly Coordination Agreement – that allow the generation system to be operating in a coordinated fashion so that individual operating decisions do not detrimentally affect the whole system.

Unfortunately, “locational marginal pricing” (“LMP”), a pricing system developed in the thermally-based PJM Interconnection in the Middle Atlantic states, has emerged as the cornerstone of FERC’s standard market design. We believe strongly that LMP is fundamentally incompatible with coordinated operation of the Northwest hydro system. First, it relies on marginal pricing, which has little meaning in a hydro-based system, because there is no readily identifiable marginal cost for operating a hydro plant. There is no fuel cost associated with increasing the output of a hydro unit since its fuel is water, while the marginal cost of a thermal plant is readily identifiable based on the cost

of fuel necessary to produce the marginal unit of energy. Second, LMP assumes that individual generation operators optimizing their operations in response to price signals will optimize the generation system as a whole. That assumption simply does not hold in the Northwest.

For your information, I have attached a lengthy FERC filing we made jointly with Public Power Council and a number of other Northwest consumer-owned utilities, which goes into some detail about the potential problems of LMP and FERC's proposed standard market design for the Northwest.

Regrettably, despite our efforts, every indication is that FERC continues its infatuation with LMP, and seems intent on forcing some form of LMP on the Pacific Northwest using RTO West as a vehicle. We believe that without specific assurances from FERC that it will not impose LMP on the Northwest system, BPA should not go forward with its filing of RTO West. Further, even with such assurances, there seems to be no way to guarantee that FERC will not follow its usual pattern of promising region-specific exceptions from its general rules, but applying those rules in practice in a cookie-cutter fashion.

V. CHEAPER SOLUTIONS BASED UPON EXISTING INSTITUTIONS SHOULD BE EXPLORED

For the Pacific Northwest, RTOs are largely a solution in search of a problem. System balkanization, lack of coordinated planning, lack of reliability, and many of the other ills RTOs are supposed to cure simply are not serious problems in the Northwest and there is no justification for a radical surgery on the Northwest transmission system to correct these supposed ills.

That is not to say that the Northwest's transmission system is perfect. Some problems remain, principally the lack of investment in transmission upgrades. We believe that the operation of the region's transmission network can be improved much more cheaply and reliably than RTO West using a strategy that concentrates on improving existing institutions, such as those responsible for regional reliability and planning. Further, the lack of investment in transmission can be addressed directly by increasing the funds available to BPA to ensure that it can complete its planned transmission upgrades.

RTO West, by contrast, is likely to make many of the problems faced by the Northwest worse instead of better. Most importantly, it seems clear that it will be years before the rules concerning how transmission investments can be recovered under RTO West will be worked out. This will simply prolong the current period of uncertainty that has crippled transmission investment in the region.

VI. CONCLUSION

Snohomish PUD strongly believes the time has come to abandon RTO West as an experiment that appears doomed to failure. Rather than continuing to invest resources in this failed project, the region should concentrate its efforts on securing funding for BPA transmission upgrades and on looking for cheaper, better ways to improve the Northwest transmission system that rely on improving existing institutions rather than the massive reinvention of the wheel represented by RTO West.

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March 8, 2002

Eric Christensen
Associate General Counsel
Snohomish County PUD
2320 California Street
P.O. Box 1107
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RE: RTO West

Dear Mr. Christensen:

This letter and the attached summary constitute our preliminary analysis of the Oregon and Washington tax implications of the formation and operation of RTO West.

The formation of RTO West is likely to impose significant new tax liability upon the electric ratepayers of the Pacific Northwest. This new tax liability arises primarily from the transfer of control of the Bonneville Power Administration's ("BPA") transmission assets, which are currently under federal control and ownership, to a new entity, RTO West, that does not enjoy exemption from state and local taxation. Substantial new taxes are also likely to arise from other structures currently proposed by RTO West, including Scheduling Coordinators and the Paying Agent Agreement.

We have analyzed the impact of RTO West under Washington and Oregon tax statutes. We conclude that formation of RTO West is likely to create major tax liability under several Oregon and Washington tax statutes. The applicable tax and our rough, preliminary estimate of the potential tax liability under each tax are listed below:

| <u>TAX</u> | <u>ESTIMATED LIABILITY</u> |
|---------------------------------|--------------------------------|
| Washington Public Utility Tax | \$57.5 million per year |
| Washington Property Tax | \$1.5 million per year |
| Washington Leasehold Excise Tax | \$53.5 million per year |
| Washington Sales/Use Tax | \$285 million one-time payment |
| Oregon Property Tax | \$45 million per year |

These estimates are of new taxes that are likely to arise from the formation of RTO West. These estimates are also, because of constraints of time and resources, incomplete. We have not analyzed what new taxes that might arise in other states

where RTO West would operate. We would expect noticeable tax consequences in those states, as well, especially in Idaho and Montana, both of which host substantial BPA transmission assets.

There may also be significant tax effects under Canadian or British Columbia provincial law, but we have not attempted to analyze those effects here. Nor have we attempted to analyze the tax burden that would be created by new entities called for under the current RTO West proposal, such as Scheduling Coordinators. There is a great deal of uncertainty about where such entities would form, how many there would be, and the level of income they would receive. However, it is clear that such entities may have substantial tax consequences for RTO West.

We must also caution that our analysis is, at this point, very rough. Because we have been unable to obtain state-by-state valuations for BPA transmission assets, we have been required to make a rough estimate of those asset values based upon the circuit miles in each state. In addition, a review of the details of this report demonstrates that there are myriad legal questions that would have to be answered to determine the amount of each tax that RTO West might be subject to. In some cases, the answer to these legal questions may substantially change the amount of tax to which RTO West would be subject. Finally, we note that the tax laws are subject to legislative change, and future legislative action could significantly change the tax burden faced by RTO West.

Although our analysis is necessarily rough, we believe it captures, at least at an order of magnitude level, the likely burden of new state taxes that the region's ratepayers might face as a result of the formation of RTO West. In this context, it is interesting to note that our estimate of roughly \$112 million in new property taxes comports closely with an initial estimate produced by BPA in August, 1999, which suggested that the transfer of BPA assets to RTO West would create new property tax liability of approximately \$105 million per year.

We note finally that this analysis is not intended to be a dispositive legal analysis on any issue. It is intended to provide only a general description of the tax consequences that might arise from formation of RTO West and should not be used as a conclusive evidence on any issue.

Very truly yours,

LANE POWELL SPEARS LUBERSKY LLP

George C. Mastrodonato
John H. Gadon
Nick P. Nguyen

GCM:lm
Enclosure

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**PRELIMINARY ANALYSIS
OF TAX IMPLICATIONS
OF RTO WEST¹**

I. Overview and Assumptions

In our view, the major tax consequence arising from the formation of RTO West is likely to be that it will subject tax-exempt federal transmission assets owned by BPA to state and local taxation by virtue of the fact that BPA would hand operational control of those transmission assets to a non-federal entity, RTO West, that does not enjoy the same tax-exempt federal status. We recognize that similar changes will occur with respect to the control of the transmission investments owned by the investor-owned utilities that will become part of RTO West and that some of those utilities propose formation of a new entity, TransConnect, that would independently own and operate the transmission assets of some of those investor-owned utilities. Since those changes in ownership and control do not involve a transfer from a tax-exempt to a taxable entity, the tax consequences of the transfer of control are likely to be less severe, and for this reason we have not attempted to examine the tax consequences of those changes in ownership and operation of investor-owned utilities.

At this juncture, we have also limited our analysis to the tax laws of Oregon and Washington, where the bulk of BPA's transmission facilities are located. We recognize that a complete analysis would have to examine the tax consequences of RTO West in other states where the RTO would operate. In particular, an analysis of Idaho and Montana tax laws is necessary to complete the picture since substantial BPA transmission assets exist in those states. The analysis presented here should be sufficient, however, to capture at least the major tax consequences that are likely to arise from formation of RTO West and the results under Oregon and Washington tax law should indicate what could be expected from a similar analysis of the tax laws in the other RTO West states.

It is also important to note that our estimates of the tax liability that would arise from RTO West are necessarily very rough. As an initial matter, we have not been able to obtain state-by-state estimates of the value of BPA transmission assets. Accordingly, we have based our estimates of tax liability on the \$8.3 billion fair market value BPA assigned to its land and transmission assets in its initial analysis of likely RTO impacts in

¹ This analysis was prepared by George C. Mastrodonato (JD, Gonzaga, 1976) and John H. Gadon (JD (with honors), University of Washington, 1983), who are partners in the law firm Lane Powell Spears Lubersky LLP, and by Nick P. Nguyen (JD, University of Washington, 1996), an associate at the Lane Powell firm. Assistance on questions related to Order No. 2000 and the form and structure of RTO West was provided by Eric Christensen (JD (with distinction), Stanford, 1987), Associate General Counsel, Snohomish County PUD.

1999. Based upon the percentage of 500-kV circuit miles in each state,² we have estimated the value of BPA assets in Oregon and Washington to be \$3.57 billion and \$3.0 billion, respectively. This is, of course, a very rough estimate of the actual value that might be placed on the utility assets of BPA by the applicable taxing authorities. It should be sufficient, however, to provide a "ballpark" estimate of state tax liability where the tax is based upon property values.

Where gross income serves as a basis for taxation, we have used the gross revenue requirements published in connection with the current RTO West Pricing proposal. The Pricing proposal assumes an annual gross revenue requirement for BPA of a little more than \$590 million, and a gross revenue requirement of a little more than \$1.59 billion for the entire RTO West transmission system.

We have also assumed that RTO West would hold property, including office buildings, control centers, computers, and the like valued at \$100 million, which is based on the range of start-up costs for existing RTOs in the preliminary cost-benefit analysis recently performed for RTO West by Tabors Caramanis & Associates ("TCA"). We also assumed annual net income for the RTO of \$130 million per year, which is based on the annual operating costs of RTO West, which TCA estimated to be in the range of \$126 million to \$142 million.

Finally, we believe that, in addition to the tax consequences of transferring federal assets to a non-federal entity, certain other aspects of the RTO West proposal are likely to have significant tax consequences. In particular, we believe the establishment of new Scheduling Coordinators exposes the transmission revenues that would flow through the Scheduling Coordinators to potentially significant new taxation. However, given the uncertainty about how many independent Scheduling Coordinators would be formed, how many existing entities would establish their own internal Scheduling Coordinators, and the exact nature of the Scheduling Coordinator, we have not attempted to quantify the potential new tax exposure associated with these entities.

II. Factual Background: RTO West and the Northwest Electric Transmission System

"RTO West" is the name of the regional transmission organization ("RTO") that a coalition of transmission owners is working to develop in the Pacific Northwest and adjacent states and Canadian provinces. The territory to be covered by RTO West is referred to as the "RTO West Geographical Area."

The coalition of transmission owners currently working to develop RTO West consists of: Avista Corporation, Bonneville Power Administration ("BPA"), British Columbia Hydro and Power Authority, Idaho Power Company, the Montana Power Company, Nevada Power Company, PacificCorp, Portland General Electric Company, Puget Sound Energy, Inc., and Sierra Pacific Power Company. These transmission owners are often

² Based upon publicly available figures, we were able to determine that approximately 43% of BPA's 500-kV line miles are located in Washington and approximately 36% are located in Oregon.

referred to as the "Filing Utilities." The Filing Utilities have been engaged in a collaborative process with a broad range of stakeholders since March 2000, to develop the proposal for RTO West.

RTO West is a nonprofit corporation formed under Washington state law. RTO West will be designed to qualify for RTO status under "Order 2000", which was issued by the Federal Energy Regulatory Commission ("FERC") on December 20, 1999. Among the features necessary to qualify as an RTO is independent governance. Independence means that the entity must not be subject to the control of entities that are in the business of buying and selling the electric energy that is delivered through the RTO's transmission system (often referred to as "market participants"). FERC has issued an order finding that RTO West's proposed governance structure satisfies the independence requirements established in Order 2000.

As currently envisioned, RTO West will not own transmission assets, apart from the facilities necessary for it to perform its system management functions. Instead, the RTO will operate transmission lines whose title ownership remains with the existing transmission owners, such as BPA. Some of the investor-owned filing utilities also plan to transfer ownership of their transmission assets to a newly formed transmission company, "TransConnect." TransConnect will then assign operational control of those transmission facilities to RTO West. The transfer of ownership of assets to TransConnect is another element of the RTO West proposal that may have significant tax consequences, but we have not attempted to analyze them here.

The Filing Utilities will bring their facilities under RTO West's operational and pricing umbrella by signing an agreement known as a Transmission Operating Agreement or "TOA". Once RTO West begins commercial operations, it will provide transmission service across all of the high-voltage facilities of all of the companies and agencies that sign TOAs. RTO West's transmission service will be governed by a FERC-filed tariff (except in British Columbia, where service will be under a virtually identical tariff filed with the British Columbia Utilities Commission).

Although RTO West is a non-profit corporation and it may attempt to qualify for tax-exempt status, we have substantial doubts about whether it can qualify for an exemption from federal taxation under either Section 501(c)(3) or under other forms of tax exemption. If RTO West fails to qualify for tax exempt status, it would be subject to federal income tax on its net income. However, since RTO West will be operated as a Washington non-profit corporation, we have assumed that it will not accumulate more than modest amounts of net income that would be subject to federal taxation.

As noted above, RTO West would operate the electric transmission facilities owned by the Filing Utilities but would not take title to those facilities. Presently, BPA's Power Business Line takes the electric output from all the federal projects in the Columbia Basin and sells the power at wholesale to its wholesale customers and the Direct Service Industries using the BPA transmission system, which is operated by BPA's Transmission Business Line ("BPA-TBL"). Under RTO West, by contrast, operational control of the

BPA transmission system would be assumed by RTO West, although BPA would retain title ownership of its transmission facilities. BPA would contribute the bulk of the transmission assets that would be operated by RTO West. Overall, BPA owns about 75% of the high-voltage transmission grid (230 kV and above) and about 50% of the lower-voltage transmission grid (115 kV) in the Pacific Northwest.

Under the current RTO West proposal, a number of new taxable entities may be created that raise the possibility of substantial new tax liabilities. For example, RTO West will require each generator and each load to use a Scheduling Coordinator to move power across the RTO West system. A few of the larger entities participating in RTO West may have the financial wherewithal to act as their own Scheduling Coordinator, but it appears likely that several new entities will be formed to act as Scheduling Coordinators for all the other parties who will be using the RTO West system.

The services to be performed by the Scheduling Coordinators are: (1) they will submit "balanced" schedules to RTO West, meaning that they will have to identify a power source for each load they schedule so that injections of power into the system for their schedule equals withdrawals; (2) they will collect all necessary billing information from their clients and submit it to the Paying Agent; and, (3) they will buy and sell balancing energy, reserve energy, and other "ancillary services" that are required to support the transactions they've scheduled. While it is difficult based on current information to estimate the number of Scheduling Coordinator entities that would be formed, where they would be located, and the amount of income they would receive, it is clear that such new entities would incur substantial tax liability. For example, as discussed further below, such entities would pay the Business and Occupation tax in Washington on their gross income or the corporate excise tax in Oregon, as well as federal income tax and other taxes such as property tax. Depending on factors such as the amount of gross income received by these entities, the location where they conduct business, and the extent to which Scheduling Coordinator functions are performed by new entities rather than in-house by existing entities, the total tax liability could be quite substantial.

III. RTO West and Washington State Tax Law

The Washington taxes of concern for RTO West which are discussed below are the public utility tax, property tax, leasehold excise tax, retail sales tax, public utility tax, and business and occupation tax. These taxes will be discussed below in the context of all the various entities identified above.

A. Public Utility Tax.

Under Chapter 82.16 of the Revised Code of Washington ("RCW"), all public utilities, including "light and power businesses" are subject to a Public Utility Tax ("PUT"). While RTO West would be different from the electric utilities that have traditionally operated in Washington in that it will not sell power but only transmission services, it nonetheless appears to fall squarely within the statutory definition of "light and power business." Under that definition, a business which is "operating a plant or system . . . for

the wheeling of electricity for others" is a taxable "light and power business." RCW § 82.16.020(5). Since the RTO would be operating the regional transmission grid in order to wheel electricity across the grid for other parties, there appears to be little question that it would be considered a "light and power business" subject to the PUT.

Under the PUT, light and power businesses are taxed on their gross income at the rate of 3.62%. The statute provides a number of exemptions that the company may deduct from its gross income for purposes of computing the PUT, but only one of those exemptions appears to be potentially applicable to RTO West. Specifically, RCW § 82.16.050(9), allows a utility to deduct "[a]mounts derived from the production, sale, or transfer of electric energy for resale within or outside the state or for consumption outside the state." Since this exemption applies to the "electric *energy*" it has generally been understood to exempt only wholesale energy transactions from the PUT. For example, the Washington Department of Revenue ("DOR") interprets RCW § 82.16.090(9) in this way. If that is the case, RTO West would not qualify for the exemption because it is dealing in electric transmission capacity, not electric energy. Hence, there is a substantial possibility that the RTO would have to pay the PUT on its entire gross income.

Using the gross revenue figures for RTO West then, the RTO would have to pay a PUT of 3.62% on its gross income of approximately \$1.59 billion, which amounts to approximately \$57.5 million per year. In this case, formation of the RTO would result not only in taxation on the approximately \$590 million of gross revenues currently received by BPA, but also an extra layer of taxation on the transmission transactions of the Investor-Owned Utilities ("IOUs") since the RTO would have to pay the PUT on its gross revenues, and the IOUs would have to pay again on their revenues, which would include recovery of the costs of wholesale transmission paid to the RTO.

It is possible that the RTO will assert that at least some of its income is exempt from the PUT under RCW § 82.16.090(9), since its revenues derive from the "transfer" of electric energy and it is therefore entitled to deduct from its gross income the revenues it derives from transfers for "resale with or outside [Washington] or for consumption outside the state." Although it is not entirely clear how this exemption would be applied to the wholesale transmission transactions handled by the RTO, the RTO might be able to substantially reduce its tax liability to the extent it can be said that the transmission services it provides are subject to "resale." At a minimum, however, the RTO would have to pay taxes on the transmission services it would provide directly to Washington end users such as the Direct Services Industries.

If the RTO paid the PUT, it would not pay the Washington Business & Occupation Tax paid by ordinary corporations. It would, however, still be subject to other Washington taxes such as the property tax and the leasehold excise tax.

B. Property Tax

1. General Rules. RCW Title 84 imposes a property tax on all real and personal property unless the property is specifically exempt from tax. In Washington,

property is assessed at one-hundred percent (100%) of its true and fair value. RCW 84.40.030. The rate of tax is the aggregate of levies approved for municipal, county, state, school district and other local taxing districts.

The basis for assessment of the operating and non-operating property of a public utility is the same as for property generally, i.e., true and fair value. For purposes of this analysis, we have assumed that RTO West will be taxed as a public utility. In valuing the operating property of a public utility, the Department of Revenue (which centrally assesses inter-county utilities) uses generally accepted appraisal principles applicable to the valuation of public utilities. The Department may consider any combination of the cost approach, the income approach, and/or the stock and debt approach in determining value. WAC 458-50-080. The cost approach determines the value of individual items of property based on historical, replacement, reproduction, and other cost measures. The income approach bases value upon a discounted present value of an income stream over a span of years. The stock and debt approach determines the value of assets by appraising the value of the liabilities of the company and stockholder's equity. Id.

Once the total value of the utility's property in Washington is determined, the value will then be apportioned to the different counties in Washington where property is located for determination of the property tax due in each county. The total property tax rate varies from county to county, and from taxing district to taxing district, but on the whole the statewide average levy rate is about 1.5 percent.

2. Transfer from exempt to taxable entities. Property that is exempt from taxation because it was owned by the United States, the State of Washington or a political subdivision thereof, or because the property was owned by an entity specifically exempt from taxation (see subsection 4 below), becomes assessable and taxable when transferred to private ownership. RCW 84.40.350. The transferred property is subject to a pro rata portion of the taxes allocable for the remaining portion of the year after the date of execution of the instrument of sale, contract, or exchange. RCW 84.40.360. In some cases, a rollback of taxes applies also. RCW 84.36.262 and 84.36.810. The property is listed and assessed by the assessor or, in the case of centrally assessed utilities, by the Department of Revenue, based on the property's value on that date.

3. Other exemptions from Washington property tax. Under RCW 84.36, the property tax does not apply to property held by certain non-profit corporations for a variety of purposes, such as public art or performance, charitable work, fraternal society, hospitals, religious use, medical research, day care, senior housing, etc. However, none of these exemptions would apply to RTO West and, furthermore, RCW 84.36 contains no exemption for which RTO West would qualify. So, all property owned by RTO West would be subject to Washington's property tax.

There are broad statutory exemptions for public property used by public or municipal entities in Washington, including municipal-owned electric utility property. RTO West is a private corporation rather than a public or municipal entity. Thus, RTO West would not qualify for the public property tax exemption.

In general, Washington property tax only applies to real property, tangible personal property and some limited types of intangible personal property. See RCW 84.36.070. In this case, we understand that RTO West will not own or hold title to any real or personal property that make up the transmission lines or associated transmission facilities in the system such as substations. Thus, there would not be a property tax payable by RTO West on these assets.

RTO West would own at least some transmission-related assets, however, such as computer systems, scheduling facilities, and control centers, and it likely would also own non-transmission assets, such as buildings and grounds. It would owe a property tax on these assets. Although the formula or appraisal methodologies for calculating the true and fair value of centrally assessed utilities is complex, as noted above on average one could expect to pay a property tax of approximately 1.5 percent of the property's true or fair market value on a statewide basis. So, hypothetically, if RTO West were to own scheduling and control facilities and non-transmission real and personal property in Washington with a true and fair value of \$100 million, its annual property tax bill for this property could be in the neighborhood of \$1.5 million.

RTO West would not escape taxation for those assets it does not own, however. For the reasons discussed below, RTO West will more than likely be subject to the Washington leasehold excise tax on the publicly owned (BPA) transmission system assets RTO West does not own but are under its control in Washington.

C. Leasehold Excise Tax.

1. General Rules. As noted above, real and personal property used in a trade or business are subject to property tax in Washington. RCW 84.36.005. Under RCW 84.36.010, property owned by a governmental entity (such as the United States government, the State of Washington, a county or a municipal corporation in Washington) is not subject to property tax. When such publicly-owned property is leased (or possession and use is otherwise granted) to a private person, Washington imposes a leasehold excise tax on the lessee.

The term "leasehold interest" is broadly defined to include any "interest in publicly owned real or personal property which exists by virtue of any lease, permit, license, or any other agreement, written or verbal, between the public owner of the property and a person who would not be exempt from property taxes if that person owned the property in fee, granting possession and use, to a degree less than fee simple ownership". RCW 82.29A.020(1). The leasehold excise tax is thus intended to be a substitute for the property tax where a private party not otherwise exempt from the property tax (such as RTO West) uses and occupies the public property.

Further, the RTO West Transmission Operating Agreement ("TOA") appears likely to be the kind of "agreement" that grants an interest in the "possession and use" of BPA property that would subject RTO West to the leasehold excise tax. In essence, the TOA

entirely transfers day-to-day control of the BPA transmission system to RTO West, and, in addition, transfers substantial authority to RTO West for longer-term control of those facilities by assigning to RTO West substantial authority over planning and expansion of BPA facilities, coordination of outage schedules, and the like. Indeed, to achieve the "independence" requirement of Order No. 2000, RTO West must operate free from BPA's control. Hence, there is a substantial likelihood that RTO West will be subject to the leasehold excise tax by virtue of its operational control over BPA assets in the State of Washington. Further, it is likely that RTO West will be determined to "possess" the entire BPA transmission system since it would use the entire system to provide transmission services to its clientele.

The leasehold excise tax is imposed at a rate of 12.84%. RCW 82.29A.030. Credits are allowed for any local leasehold excise taxes paid pursuant to RCW 82.29A.040 and also in an amount, if any, by which the leasehold excise tax exceeds the property tax that would apply to such leased property if it were privately owned. RCW 82.29A.120(1). Thus, the leasehold excise tax is designed to approximate what the property tax would be if the lessee owned the property in fee.

The leasehold excise tax is imposed on "taxable rent" (RCW 82.29A.030), which ordinarily includes the rent payments set forth in the contract ("contract rent") (RCW 82.29A.020(2)(a)), provided that the leasehold interest was established through competitive bidding or a similar process. (RCW § 82.29A.020(b)). In this case, however, RTO West would not be required to pay any consideration for assuming control over BPA's transmission facilities. Hence, it is likely that the Washington Department of Revenue would assign a value to RTO West's leasehold interest in BPA's transmission system based upon "a fair rate of return on the market value of the property" subject to the leasehold interest. (RCW § 82.29A.020(b)(ii)).

Although it is difficult or impossible at this time to estimate the leasehold excise tax due using the above criteria, the most likely outcome is that the leasehold excise tax will approximately equal the property tax that would be owed if BPA transmission assets were privately held. As noted above, RCW 82.29A.120(1) allows a credit against the leasehold excise tax equal to the amount that the leasehold excise tax exceeds the property tax that would otherwise apply to the property. So the maximum amount of leasehold excise tax payable by RTO West would be the amount of the property tax due on the property. Thus, one can determine the approximate amount of leasehold excise tax that would be imposed on the property by calculating the approximate amount of property tax, because that would be the maximum amount of leasehold excise tax payable in any event.

As noted above, the property tax on average, is imposed at a rate equal to 1.5 percent multiplied by the true and fair value of the property. Hence, based upon our rough estimate that the portion of BPA's transmission system located in Washington would be valued at roughly \$3.57 billion, we estimate that RTO West would have an annual exposure of \$53.5 million to the leasehold excise tax. The amount of tax actually owed by RTO West could be higher or lower depending on the actual true and fair value of the

BPA assets located in the state of Washington, or the calculation of the leasehold excise tax by the Department of Revenue under RCW 82.29A.020(2)(b). However, we believe our estimate roughly approximates the magnitude of the annual property tax or leasehold excise tax that could be imposed on the BPA assets located in Washington which will be under the operational control of RTO West.

2. Operating Properties of Public Utilities. RCW 82.29A.130(1) provides an exemption from the leasehold excise tax for any leasehold interest constituting a part of the operating properties of any "public utility" which is assessed and taxed as a public utility. WAC 458-29A-400(2). If property does not qualify for the public utility exemption from leasehold excise tax, the public utility leasing the property would be subject to the leasehold excise tax. But if property is eligible for the public utility exemption from leasehold excise tax, such property will instead be subject to property tax.

Accordingly, the BPA assets held by the RTO would be subject to the leasehold excise tax since BPA is not a "public utility" within the meaning of the statute. Most of the remaining transmission assets over which the RTO would have operational control most likely would not be subject to the leasehold excise tax because they would be considered the operating properties of the investor-owned public utilities that own the facilities. The underlying public utility would pay property tax on those assets and the RTO would not be required to pay a leasehold excise tax on those assets. The only complication that could arise is if the transfer of operational control of the assets could be said to remove them from the investor-owned utilities' "operating properties."

3. Additional issues arising under leasehold excise tax. To the extent that the leasehold excise tax applies, leasehold excise tax will generally be collectible from the private lessee, in this case RTO West. There are two exemptions from the leasehold excise tax that, at first glance, appear potentially applicable to the RTO. On closer examination, however, it is clear that neither exemption would apply. Specifically, the two exemptions from the leasehold excise tax are for situations where either (i) a private owner has use or occupancy of public property if the purpose of such use or occupancy is to render services to the public owner (see WAC 458-29A-100(2)(f)(iii), or (ii)) to the extent that the use and possession of public property is solely with respect to a "Management Agreement" as defined in the rules (WAC 458-29A-100(2)(j)).

It appears unlikely either exemption would prevent the imposition of the leasehold excise tax on RTO West. The exemption for private parties who provide services to the public owner of the facility is unlikely to apply because RTO West will provide a variety of services to all parties using the Northwest transmission grid. The exemption, by contrast, applies only where the public owner of the facility is the sole recipient of the services rendered by the private party. WAC 458-29A-100(f)(iii).

Nor would the exemption for a "Management Agreement" apply. This exemption applies only if three specific criteria are met and RTO West appears to meet none of them. The first criterion is that the public property owner "retains all liability for payment of

business operating costs and business related damages." WAC 458-29A-100(j)(i). Under RTO West, however, users of the RTO-controlled transmission system, rather than BPA, would have the primary liability for the operating costs of the transmission system. The second criterion is that the public property owner must retain the "full discretion whether to eliminate, reduce or expand the business activity conducted on the property." WAC 458-29A-100(j)(ii). Under RTO West, BPA would retain little or no control over decisions to eliminate, reduce, or expand the transmission services offered over its system. The third criterion is that the public property owner has "full control of the prices to be charged for the goods or services provided in the course of use of the property." WAC 458-29A-100(j)(iii). Under RTO West, the prices charged for transmission services provided over the BPA system would be set by a RTO West tariff subject to the approval of FERC. Hence, BPA would have substantially less than "full control" over those prices.

D. Retail Sales Tax/Use Tax.

The retail sales tax is imposed on each retail sale in this state. RCW 82.08.020. The use tax is generally imposed on property used in Washington and upon which the retail sales tax has not been imposed. RCW 82.12.020. The use tax is significant in the context of RTO West because the Washington retail sales tax has presumably not been paid by BPA on any of its Washington assets (because the United States Government is exempt from the Washington sales or use tax). However, when BPA allows RTO West to use its assets, the Washington use tax will likely be triggered.

Since BPA will not be transferring title to its Washington assets to RTO West, the assets will likely be subject to use tax under the "bailment" provisions of Washington's use tax law. Bailment occurs when property which has not been subjected to sales or use tax is used in Washington for essentially no consideration. In a bailment situation, the use tax is measured by the reasonable rental value of the property bailed. RCW 82.12.010(1)(b); WAC 458-20-178(13).

With the information presently available, it would be extremely difficult to calculate the reasonable rental value of BPA's Washington-based assets. In addition, the Department would not apply use tax on the property's reasonable rental value if sales or use tax has been paid on the property. Here, because RTO West's use of the BPA transmission assets is presumably long-term, it may be prudent for RTO West to pay a one-time use tax on the full value of the BPA assets transferred to use by RTO West, rather than reasonable rental value attributed to periodic lease payments ad infinitum, because this latter amount could, over time, lead to tax payments that could far exceed the value of the assets.

If the RTO followed this course, using our \$3.57 billion estimate of value for BPA's Washington assets, the use tax at a hypothetical eight percent (8%) on these assets would be approximately \$285 million.

E. Business and Occupation Tax.

As noted above, RTO West will most likely be subject to the PUT, which would mean that it is exempt from the Washington Business and Occupation ("B&O") tax. However, if it is determined that RTO West is not a "light and power business" subject to the PUT, it would instead be subject to the B&O tax. Other RTO-related entities in Washington, such as Scheduling Coordinators, will also be subject to the B&O tax.

The B&O tax is a tax on "the act or privilege of engaging in business activities". RCW 82.04.220. The B&O tax is "measured by the application of rates against value of products, gross proceeds of sales, or gross income of the business, as the case may be". RCW 82.04.220.

The B&O tax on businesses like RTO West is imposed under the "other business or service activities" classification. RCW 82.04.290(2); Washington Administrative Code (WAC) 458-20-138 and 458-20-224. This tax is measured by the "gross income of the business". RCW 82.04.290. Gross income "means the value proceeding or accruing by reason of the transaction of the business engaged in". RCW 82.04.080. Value proceeding or accruing "means the consideration . . . actually received or accrued". RCW 82.04.090.

To estimate the estimated B&O tax for the RTO, the expected revenue of the RTO, approximately \$1.59 billion, is multiplied by the current B&O tax rate of 1.5 percent. This results in an estimated tax liability of approximately \$23.8 million per year. Hence, if the RTO escapes the PUT, which we estimate to be approximately \$57.5 million per year, it would still have to pay a B&O tax of approximately \$23.8 million. Cities are also allowed to impose their own B&O taxes. So, if RTO West is located in a city that imposes a B&O tax, then RTO West would likely have to pay an additional B&O tax to the city in which it is located.

The B&O tax would also be imposed on the gross income or fees of the Scheduling Coordinators and Paying Agent that are part of the RTO West structure as currently proposed. At this juncture, it is very difficult to reliably predict what the taxable gross income for these entities would be. But, as noted above, the gross income of each entity located in Washington would be taxed at the rate of 1.5 percent. One can simply multiply their anticipated or expected gross income times the current B&O tax rate of 1.5 percent.

The above discussion on the B&O tax assumes that RTO West and the other entities are doing business in Washington only, and their only places of business are located in this state. But, if they have places of business outside Washington, the Washington B&O tax may be apportioned. RCW 82.04.460. Apportionment is generally based on a formula which essentially calculates Washington costs and total costs multiplied by gross income. So, for example, if Washington costs account for seventy percent (70%) of total costs of operation, 70% of gross income would be taxable in Washington. It would appear that at least RTO West might be allowed to apportion its income for B&O tax purposes since it will have transmission facilities in more than one state and, presumably, offices or other

places of business in those other states to support those facilities. Thus, RTO West's gross income might be subject to apportionment, thereby reducing its Washington B&O tax liability.

IV. RTO West and Oregon Tax Law

A. Brief Conclusions and Estimates

Oregon does not have a sales or use tax. At the state level, the Oregon taxes of concern for RTO West are property and corporate excise (income) taxes. In addition, there are also business license fees and taxes in the city of Portland and the surrounding Multnomah County that are based on net income.

There is a substantial risk that RTO West will be subject to property tax on the value of the transmission system under its control in Oregon. Based upon our rough estimate that BPA transmission assets would be valued at roughly \$3 billion, RTO West would be subject to Oregon property taxes of roughly \$45 million annually.

In addition, RTO West will probably be subject to Oregon corporate excise tax (at the rate of 6.6%) on its Oregon taxable income. As noted above, the RTO will be operated on a non-profit basis, so it likely will not have significant income tax liability at the federal level. Since the Oregon tax is based upon the level of the federal taxable income, it is also likely to be relatively small. The Oregon corporate excise tax could result in significant liability, however, upon Scheduling Coordinators and other new RTO-related entities doing business in Oregon.

Similarly, business license fees and taxes in the city of Portland and the surrounding Multnomah County that are based on net income could result in significant tax liability for such entities.

B. Oregon Property Tax.

1. No exemption from Oregon property tax. Under the Oregon Revised Statutes (ORS), property tax does not apply to property held by certain non-profit corporations for a variety of purposes, such as public park or recreation, charitable work, fraternal society, religious use, senior housing, etc. However, none of those exemptions applies to RTO West.

There is also a broad statutory exemption for all public and corporate property used by public or municipal entities in Oregon, including municipal electric utility property. ORS 307.090. In this case, RTO West would operate as a private non-profit corporation rather than as a public or municipal entity. Thus, RTO West does not qualify for this public property tax exemption.

In general, Oregon property tax only applies to real property and tangible personal property. ORS 307.030(1). In this case, RTO West will likely own office buildings,

major software and computer hardware, control centers, and the like. As noted above, if the RTO is located in Washington, it would incur annual property tax liability of approximately \$1.5 million per year. If it is instead located in Oregon, roughly the same property tax liability would result because the property tax rates in the two states are comparable, approximately 1.5% of assessed valuation. The RTO will not, however, own or hold title to transmission lines and associated facilities such as substations. Nevertheless, for the reasons discussed below, there is substantial risk that RTO West might be subject to Oregon property tax on any the transmission lines and related systems in Oregon under its control.

2. RTO West subject to property tax on BPA transmission system under its control. As a transmission service provider, RTO West would probably be subject to the special property tax assessment rules applicable to public utilities, ORS 308.505 to 308.665. Under these special rules, an electric utility is assessed by the Oregon Department of Revenue (ODR) rather than by the county assessors. Moreover, with a few exceptions that are not applicable to this case, any property used or held for future use by RTO West in performing or maintaining its electric utility services would be subject to assessment. ORS 308.505(1)(a), 307.030(2). Property for this purpose includes all real and personal property, whether tangible or intangible, that is used or held by the taxpayer as owner, occupant, lessee or otherwise for the performance of its business or service. ORS 308.510(1).

Thus, RTO West would be subject to tax not only on the property it actually owns in Oregon, such as its control centers, office buildings, and the like, but it could also be subject to property tax on the transmission system over which it exercises operational control in Oregon, on the theory that such control represents a taxable intangible property, or that RTO West holds the transmission system under the equivalent of a lease or right of occupancy.

With respect to the BPA transmission system in Oregon that will be under operational control by RTO West, the ODR could also argue that RTO West should be subject to Oregon property tax under ORS 307.060, regardless of whether it is treated as a public utility.

Specifically, property held by the federal government is exempt from Oregon property tax. ORS 307.040. However, property owned by the federal government but held by a taxable entity under a lease or other interest not amounting to a fee simple can be assessed at its full value against the taxable user. ORS 307.060. The ODR could argue that because RTO West will have effective and exclusive operational control over the BPA transmission grid in Oregon, it should be assessed on the full value of such transmission system, subject to any deductions for applicable restrictions.

In *Power Resources Cooperative v. Department of Revenue*, 330 Or 24 (2000), *aff'g* 14 Or Tax 479 (1998), an electrical cooperative had a capacity ownership agreement with BPA that gave the cooperative 50 MW worth of transmission capacity for the physical life of the Intertie, an electric power transmission system running from Canada to the

United States-Mexico border that is largely owned and operated by BPA. The Oregon Department of Revenue argued, and the Oregon Tax Court and the Oregon Supreme Court agreed, that the taxpayer had sufficient exclusive control over a part of the Intertie transmission system, and thereby should be subject to property tax under ORS 307.060 as a holder of a lease or similar interest in federal property.

In *Power Resources*, BPA retained all rights to operate, maintain and manage the Intertie. However, for an advance lump sum payment and a share of the operating, maintenance and replacement expenses for the Intertie, the taxpayer was entitled to 50 MW of capacity at any given time, subject to applicable scheduling procedures. The taxpayer could use that capacity to transmit electrical power that it produced or purchased, or it could use that capacity to "wheel" electricity for other entities. Any unused, i.e., unscheduled, capacity could be used by BPA, but if BPA were to use such unscheduled capacity, BPA would be obligated to compensate the taxpayer.

The Oregon Supreme Court acknowledged that ORS 307.060 applied only to a possessory interest, pursuant to *Sprout et al v. Gilbert et al*, 226 Or 392 (1961). The court found that possessory interest is based on certain degree of control and exclusive use, which could vary depending on the nature of the property at issue. Although the Intertie contract right in that case did not confer the same kind of exclusive control or occupation over a specific portion of property that is characteristic of a possessory interest in real property, the court concluded that the exclusive right to use and control the transmission system to the extent of 50 MW was sufficient to qualify as a possessory interest in the Intertie for property tax purposes. The court therefore concluded that the taxpayer "held" a share of the property that made up the Intertie, and may be assessed and taxed for that share to the extent provided by law.

Given the *Power Resources* precedent, it appears unlikely that RTO West could avoid paying property tax on the BPA transmission assets it would control in Oregon. This is because RTO West would have more substantial control over the BPA assets than did the taxpayer in *Power Resources*. Specifically, RTO West would have the right to control and manage transmission on the BPA system in Oregon, rights which the taxpayer in *Power Resources* did not have. Hence, RTO West's rights would be even more substantial than the rights held to trigger property taxes in the *Power Resources* case. We note, however, that the *Power Resources* precedent is subject to further litigation brought by other holders of transmission capacity contracts on the Third AC intertie, so *Power Resources* may not be the last word on this subject.

3. Rough estimate of property tax liability. Several questions arise with respect to the valuation of BPA transmission assets for the purposes of taxing RTO West's use of those assets. First, the ODR might choose to value RTO West as an operating unit under the unit method allowed by ORS 308.555, and then allocate a portion of that total value to Oregon. The valuation process is complex and generally relies on the three traditional approaches based on market comparison, cost and income. See e.g., *Pacific Power & Light Co. v. Department of Revenue*, 10 Or Tax 417 (1987). Allocation may depend on different factors such as production and distribution capacities

in Oregon, as measured by a weighted average of original cost, kilowatt-hours, and revenue. OAR 150-308.550(2)-(C). This operating unit computation might yield a different valuation.

Second, the assessed value for Oregon property tax purposes is subject to certain constitutional limitations designed to keep the keep assessments within certain modest annual increases from the 1995 level. Valuation for new property on the tax roll is thereby subject to certain modification to reflect the general ratio of average assessed value to average real market value for the year.

Once assessment is complete, the assessed value will then be apportioned to different counties in Oregon for determination of the property tax due. The applicable property tax rate can vary from county to county, as well as between different taxing districts within a county. There is a general constitutional cap for school and local government operating levies of \$15 to each \$1,000 of assessed value, although certain bond and other local levies are not subject to this constitutional cap. The actual levy amount varies by tax code area. In the city of Portland, the consolidated tax rate is approximately \$22 per \$1,000 of assessed value. Assuming property tax at the operating levy cap of \$15 to each \$1,000 of assessed value, our estimate of the \$3 billion value of BPA transmission assets located in Oregon would yield an aggregate property tax bill of about \$45 million annually.

C. Oregon Corporate Excise Tax.

The application of the Oregon corporate excise tax is summarized as follows.

ORS 317.070 provides that any public utility that is subject to central assessment for property tax purposes, and every mercantile, manufacturing and business corporation doing business in Oregon, will be subject to an excise tax on its Oregon taxable income, unless specifically exempt by the statute. The tax rate is currently 6 and $\frac{6}{10}$ percent. ORS 317.061. The corporate excise tax is effectively an income tax that a corporation has to pay for doing business in Oregon.

The starting point is generally the federal taxable income of the corporation, subject to some additions, subtractions, adjustments and modifications specific to Oregon. In general, if a corporation has relatively little taxable income for federal income tax purposes, then it normally also has relatively little Oregon taxable income. Because RTO West would be operated as a non-profit entity, we assume that its taxable income, if any, would be small and its corresponding tax liability would also be small.

For Scheduling Coordinators and new entities that may be created as a result of RTO West, however, the Oregon corporate excise tax could create substantial tax liability. For the reasons noted in connection with our analysis of the Washington B&O tax, we have not attempted to quantify that liability here.

D. RTO West and Local Oregon Taxes.

There are also several local Oregon taxes of potential importance to RTO West and related entities. We do not treat these taxes in detail here, but it is worth noting that, for example, the City of Portland imposes a gross receipts tax of 5% on "public utilities" doing business with city limits and a business license fee of 2.2% of net income for other types of businesses operating in the city. Similarly, Multnomah County, Oregon, imposes a 1.45% business sales tax on businesses operating within the county.

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White Paper

Critique of the RTO West Preliminary Cost-Benefit Analysis

February 14, 2002

Summary

- The RTO West Cost-Benefit Analysis (“CBA”) uses a model – locational marginal pricing – that does not reflect the realities of the Pacific Northwest (“PNW”) electric system. The concept of location marginal pricing has little meaning in a hydro-based system. In addition, the major supplier in the PNW, the Bonneville Power Administration (“BPA”), sells the bulk of its power at cost-based, not market-based, rates, so the changes in market prices have little meaning for BPA customers, except that BPA may lose revenues in a declining market.
- The CBA makes assumptions that stand the PNW electric system on its head – it assumes that hydropower production will not move in response to price signals and so the CBA only models shifts in thermal pricing. In reality, almost all PNW thermal generation is baseloaded while hydro changes in response to moment-to-moment system conditions. The result is that a problem — inefficient thermal dispatch — is assumed, then assumed away in the “With-RTO” case.
- The CBA fails to recognize that considerable efficiency in dispatch has already been attained in the PNW through the system-wide coordination of the system accomplished through the Pacific Northwest Coordination Agreement (“PNCA”) and the Mid-Columbia Hourly Coordination Agreement.
- The CBA fails to account for all the costs of the RTO. It estimates only the cost of RTO West start-up and operation, and fails to account for many of the costs of the current RTO West proposal, including, for example, the costs of Scheduling Coordinators, tax effects, and the increased internal costs RTO West customers will face in dealing with a vastly more complicated system than the status quo.
- The CBA assumes that reduced market power prices will result in consumer benefits in the Northwest. In fact, reduced power prices will harm utilities that sell substantial amounts of surplus power on the market. If the RTO does produce lower market power prices as predicted, we estimate that BPA customers will suffer a net loss of \$57 million.

Introduction

The RTO West Filing Utilities (BPA, PacifiCorp, Avista, Idaho Power, Puget Sound Energy, Portland General Electric, and Montana Power) intend to file their proposal with FERC in early March 2002. As part of that filing, Tabors Caramanis & Associates (“TCA”) has been retained by the Filing Utilities to complete a study on the overall impacts of RTO West using the GE MAPS computer model. TCA has also been retained by BPA to examine more detailed impacts of RTO West in each of the Pacific Northwest states.

On February 4, 2002, Tabors Caramanis & Associates presented the RTO West Benefit/Cost Study Preliminary Status Report. This status report consists of a 126-page slide presentation.

This white paper provides an initial critique of the preliminary study. The focus of the critique is the overall study approach and conclusions. The white paper focuses on three main areas:

- Modeling results do not make sense. While the GE MAPS model is a useful tool for some areas, it does not model the PNW accurately. Hydro is modeled as static, generation costs based on market clearing prices, while long-term contracts and exchange agreements are ignored. This results in increased imports in areas with surplus low cost hydro resources, and price changes that are overstated. The TCA study also accounts for only a few of the cost-benefit items that needs to be considered.
- Even if it is assumed that model results are correct, Northwest electric consumers are likely to be harmed, not benefited. This is due to the assumption of applying the market clearing prices (MCP) change to total load and ignoring the price impact on current surplus sales.
- Projected efficiency savings are unlikely to occur. The TCA study assumes several efficiency savings would occur due to the creation of an RTO. Given that the Northwest is already coordinating, planning and generating in a cooperative manner, it is unlikely that the perceived benefits of an RTO will actually occur at a significant level.

Results of the Model Do Not Fit the Reality of the Northwest

While the TCA analysis attempts to create a model of how the electricity market on the West Coast will change with the addition of the RTO, there are some outcomes that do not reflect expected results given what we know about the system. This is likely due to flaws in the assumptions, particularly with respect to how generators bid in prices and the level of exposure to market prices by utilities and end users. The electricity market is very complex and it is difficult to model all of the factors that impact wholesale and retail prices for electricity. This creates the underlying concern about the value of the model used by TCA.

Under the TCA model, it is assumed that generators bid into the market based on their cost of producing power. The market-clearing price at any time is then the cost of the last unit of power generated to meet the loads on the system. In a world where there are many buyers and sellers, with no barriers to entry and full price disclosure, economic theory would tell us that producers would bid in their marginal cost of power. In the West Coast electricity market, we do not believe the conditions exist to allow the behavior that is assumed. In the past year, market prices have not been reflective of the marginal cost of any unit and power producers and marketers have been selling at prices that reflect what the market will bear. During times of power shortages, there is a delay in the ability to bring cost-effective projects on line in a timely basis and this barrier to entry creates a market that is not tied to the marginal cost of power.

Also the TCA model assumes that most generation is available to be bid into the market. In reality the majority of power generation is sold through longer-term contracts of one year or

more, where power is sold at long-term market prices at the time of the sale, with no ability to sell in the daily market. In fact, generators often need to have such long-term sales in order to secure financing for their projects. In addition, they are likely to have the fuel for the project secured with long-term contracts, leading to costs that are not reflective of current market fuel prices.

In addition to power that is secured with long-term sales contracts, there is a large amount of power generated in the Pacific Northwest that is exchanged for power generated in California without respect to market prices. This exchange of power is done on a contractual basis and allows the two regions to make use of seasonal differences in loads to provide generating efficiencies. These exchange contracts were in place long before a wholesale market for electricity was developed. In the summer, Bonneville exports surplus power to California utilities. In the winter, California returns the power when the Pacific Northwest has greater loads. The power is not exchanged on a pure one-for-one basis, but it is not subject to daily market prices. The TCA model appears to count this generation as being available for bidding into the open market during both seasons.

A reserve sharing agreement already exists in the Northwest allowing each individual control area to carry less reserves than would otherwise be required to cover its single largest contingency on a stand-alone basis. Reserves are pooled among Northwest control areas such that each control area carries reserves of 5% of hydro serving load and 7% of thermal serving load. The Northwest Power Pool administers the reserve sharing agreement. Since the existing reserve pool is based on percentages of resources serving load, the requirements would not likely change in an RTO environment, other than potentially minor differences in resource stacking.

Given the issues discussed above it is not surprising that the model produces results that cannot be reconciled with the realities of the PNW electric markets. The most glaring example is contained in the results for British Columbia. The Tabors analysis suggests that changes in market prices will lead to prices in British Columbia that are higher than across the border, leading to reduced generation in British Columbia and additional imports from the U.S. into British Columbia. This result is seriously flawed. In British Columbia there is a large surplus of power due to the level of hydro generation in that area. For planning purposes, utilities generally count on the firm output of a hydro system (output under worst case water levels). Even if British Columbia needed all of the firm output to serve load in the Province, there would be a large amount of non-firm hydropower generated under normal water conditions. This nonfirm power has an insignificant marginal cost to produce and therefore is sold whenever possible to markets that have higher power prices. Given that there is a fixed level of available transmission capacity between British Columbia and the US, the best use of this transmission is to export nonfirm hydropower. British Columbia is benefited by the export of surplus power generation, and would not view a lower market price for power in British Columbia as a positive impact. British Columbia is served primarily by BC Hydro, a Crown Corporation. BC Hydro customers pay for generation on the system on a standard regulated cost recovery approach. Any surplus power is marketed through Powerex, a subsidiary of BC Hydro. In 2001, for example, BC Hydro's trade revenues were \$4,239 million higher than the previous year, with only a 2% increase in volume, due to the high prices in California. Revenue from the sale of surplus power is used to either reduce the costs of generation or paid as dividends to the Province. Given that

the BC Hydro customers do not actually pay the market price for power in British Columbia, we cannot conceive of a situation where the RTO would actually be able to produce a situation where power is imported from the US at market prices to displace cheap hydropower generated and sold on a cost-basis.

There are many detailed assumptions made in the TCA model that we have not provided a critique of. The underlying flaws in the model approach lead to results that cannot be corrected with improved assumptions at the more detailed level. We recognize the difficulty in perfectly modeling a very complex system and therefore understand that TCA had to make some simplifying assumptions. However, in estimating market price impacts, the flaws in the model and the assumptions should be taken into account when interpreting the results and using the results to project real benefits.

Additionally, the TCA study accounts for only a few of the cost-benefit items that need to be considered. It is unclear if these other factors are going to be accounted for by TCA in the final version, by some other party, or not at all. We understand that another group is looking at impacts on reliability to the system under an RTO. To develop the costs and benefits of an RTO the general approach would be to compare all of the costs against all of the benefits. The TCA study estimates the benefits on market prices and increased generation in a one-year time period. It then provides a range of costs expected for running the RTO and an estimate of start up costs. Other items have not been included, such as:

- Any added or reduced costs for individual utilities due to the tasks that are required by a RTO.
- Any changes in the cost or timing of new transmission projects.
- Any changes to cost or location for new generation as the result of an RTO.
- Any additional costs or savings associated with transmission planning under an ISO.

Furthermore, with the use of a one-year time period there is no amortization of the start-up costs and it is difficult to determine whether the estimated savings will continue at similar levels in the future.

Estimated Benefits Not Really Benefits

The previous sections described how the initial assumptions in the model do not represent the NW system accurately and why the results of the marginal clearing price analysis are not valid. However, assuming that market-clearing prices will change as is suggested in the TCA model, the level of benefits calculated in the study is still not relevant for a majority of the participants in RTO West. This section of the report will discuss the impact of lower market prices on NW customers.

The TCA study shows approximately \$360 million in social benefits to the RTO West participants. This benefit is a result of lower market price, which reduces load payments, and increased generation, which benefits the generators.

As discussed previously, the majority of power supplied in the NW is supplied based on fixed contracts and not purchased at market prices. In addition, these contracts are often priced at the cost of generation, rather than linked to market prices. In the case of BPA customers, for example, Bonneville rates are cost based. Only a fraction of the power supply cost is based on market prices. Therefore, applying the reduced market-clearing price to total load vastly overstates the benefits to BPA customers.

In addition, part of the cost of generation is offset by the sale of surplus power. As the market price is reduced under the with RTO case, load serving utilities who sell large amounts of surplus power are likely to see increased costs rather than increased benefits.

The TCA study is projecting the average energy price for the BPA area to be reduced by approximately \$5 per MWh, from \$38.02 per MWh to \$32.81 per MWh, if RTO West is implemented. At the same time, the study estimates that surplus sales will increase by 1810 GWh due to this price decrease. It is not clear if this additional sale amount is actually attainable since BPA's output is limited by water conditions, not transmission constraints. The increase in BPA surplus sales may actually be an artifact of failing to adequately model a hydro-based system.

Assuming, the additional surplus sale would occur in the RTO West case, the additional sales would benefit BPA and its customers with an additional \$59 million. On the other hand, BPA is already selling on the market in the without RTO West case. In the "With RTO" case, BPA will lose approximately \$5.21 per MWh due to the reduced market price. Based on BPA's Wholesale Power Rate Study Documentation (WP-02-FS-BPA-05A), the short-term power sales for 2004 are projected at approximately 22,293GWh. Assuming a reduction in price of \$5.21 per MWh due to the implementation of a RTO, this results in a loss of over \$116 million. Therefore instead of a benefit to BPA customers, an additional cost of almost \$57 million will be incurred due to the development of an RTO.

While intuitively reduced market prices will benefit consumers, it has clearly been demonstrated in the last six months that this is not necessarily true for utilities with surplus energy for sale to customers. As an example, the BPA has recently projected that it will be forced to implement the Financial Based Cost Recovery Clause (FB-CRAC) in October 2002. The BPA indicated that this is largely because market prices have been so low that they are not generating the revenue from surplus sales that they had anticipated when they set their rates. Therefore, BPA customers will continue to pay over 40% above base rates through 2003 and perhaps longer. This phenomenon is also discussed in FERC's report to Congress on January 31, 2002, *'Report on the Economic Impacts on Western Utilities and Ratepayers of Price Caps on Spot Market Sales'*. This report discusses the losses for western utilities resulting from the sale of surplus energy from long-term contracts.

Efficiency Savings

The Tabors study assumes several efficiency savings would occur due to the creation of an RTO. The savings that have been mentioned are fuel savings due to efficient dispatching and removal of pancaked rates, contract path scheduling savings, savings related to congestion management,

coordination of maintenance, transmission expansion and planning, transmission rate impacts and transmission losses. Each of these areas will be further discussed below.

■ Efficient Dispatching and Pancaked Transmission Rates

The study asserts that eliminating pancaked transmission rates increases the economic efficiency of dispatching generation resources to meet demand at the lowest cost, and thus lowers the total cost of producing electricity. There are two primary limitations to such an assertion, as discussed below.

First, achieving savings from the economic dispatching of generation requires generators to price available generation capability according to a cost-based pricing structure rather than the current market-based pricing structure. Otherwise, available generation would tend to be priced at the market (which may be the marginal cost of generation during surplus situations or higher during deficit situations), as adjusted by transmission rates, and would not be priced based on the incremental generation cost of each generator. Also, there is no guarantee that generators will bid into short-term markets at marginal rates. Indeed, there is no meaningful mechanism in the RTO West proposal to ensure that the bidding process for short-term energy will produce competitive or marginal prices. Hence, the RTO is likely to produce strategic, rather than competitive, bidding in many situations and the model fails to account for this fact. Strategic bidding by generators has been nearly a constant in existing efforts to form RTOs.

Second, in order to maintain the integrity and reliability of the transmission system, there are practical limits on the amount of generation that must be maintained in any particular operating area. Economic dispatch is only possible to the extent that the integrity and reliability of the transmission system is maintained.

■ Contract Path Scheduling

It has been suggested that an RTO could operate the commercial arrangements of the current transmission systems more efficiently than the current transmission providers are able to accomplish through contract path arrangements. The RTO would apparently accomplish this through managing transmission paths as a whole and through the utilization of a congestion management model.

While there may be some limited benefits achievable through a single-operator optimization of the transmission system, an RTO would be limited, to a large extent, by the same types of constraints as the current generator owners, market participants, transmission providers and control areas. Owners of existing generation will continue to require transmission of their generation, via contract paths, from the generation source to the markets being served by such generation owner on a firm basis, even though such paths may go partially unutilized at times based on the actual generation requirements of the owner. To significantly alter the contact flow of existing generation would require the RTO to have some level of control over the dispatching of generation, or in effect, the creation of a power pool. To the extent that the RTO would be able to optimize utilization via auctions of unused capability, on a non-

firm or short-term firm basis, such efficiencies should also be attainable via FERC's currently rules for open access or by modifications to the open access requirements.

■ Congestion Management

Congestion management by the RTO may produce some benefits but once again would be dependent on the level of control that the RTO would be allowed to exert on dispatch of generation. To date, there have been limited cases of the need for congestion management to relieve transmission constraints. The most notable example is the West of Hatwai constraint affecting power flows from east to west along a cut-plane in eastern Washington and western Idaho. The projected congestion benefits of RTO West are likely due to the modeling assumption regarding a fixed dispatch of the hydro resources. In reality, these resources are often dispatched to mitigate congestion.

■ Coordination of Maintenance Schedules

Regarding coordination of maintenance schedules among regional thermal generators it is not obvious that an RTO would be able to achieve any greater coordination than already exists. Generation owners in the Northwest currently schedule maintenance based on a variety of considerations including market conditions, market prices, labor availability, weather conditions, stream-flow conditions, and parts availability. In the Northwest, there are several large generation units that are owned by multiple parties, such as Colstrip units 1, 2, 3, and 4, and the maintenance of those units is already highly coordinated among the generation owners. Generation units that are owned by single parties plan their maintenance based on a variety of factors, including those listed above. Other than slightly altered market conditions that may result from formation of an RTO, for an RTO to provide a greater level of coordination than already exists would likely require the RTO to have some level of control to dispatch generation, such as a power pool operator. Even so, it is not obvious that maintenance planning would be significantly different than current efforts.

■ Transmission Expansion and Planning

Transmission expansion and planning is currently highly coordinated in the Northwest via the Northwest Power Pool and the Western Systems Coordinating Council. These organizations set detailed and stringent guidelines for transmission operators and provide for extensive coordination between existing transmission operators. Before the development of other RTOs, efficient transmission expansion has been proclaimed as a great benefit. However, in many cases, an RTO does not solve the issues surrounding transmission expansion and, in some cases, makes it more difficult. For Example, San Diego Gas & Electric (SDG&E) has just recently given notice to FERC that unless planned transmission upgrades are rolled into the ISO charge, SDG&E would delay these planned upgrades. At this point, the RTO West model for transmission planning and expansion is largely a statement of principles, with little development of details, so it is difficult or impossible to meaningfully evaluate whether the RTO will in fact improve expansion of the PNW transmission system.

■ Transmission Rates

The FERC jurisdictional transmission entities' transmission rates are currently established by the FERC requirements, based on the embedded cost of transmission and the firm peak coincident use of the system. Other than the costs attributable to the formation of an RTO, the embedded costs of the combined systems and the firm peak coincident use of the system would remain virtually unchanged. As such, while the RTO may establish a uniform transmission rate, the overall costs would remain virtually unchanged and would therefore result in cost shifting amongst current users of the transmission systems.

■ Transmission Losses

To the extent that FERC establishes transmission losses based on the calculation of actual losses, the establishment of an RTO would not change the fundamental cause and effect of transmission losses. As such, system-wide losses would remain consistent with current calculations and any establishment of uniform loss rates would result in cost shifting amongst transmission users. Further, to reduce overall system losses, via changes in the generation dispatch, would be limited based on the items already discussed above. On the other hand, assuming the results of the CBA are accurate, generation under the RTO case is likely to be located further away from load areas. This results would actually increase system losses compared to the without RTO case, a fact that has not been addressed by the CBA.

Closing

The TCA study uses a model that does not reflect the operational realities of a hydropower-based system like that in the Pacific Northwest. As a result, it fails to truly replicate how the NW works both in the without RTO case and in the with RTO case. While models can often provide a rough picture of reality, the impact of creating an RTO is an extremely complicated change, which is difficult to model the impact on customers in the RTO using a universal set of assumptions. Previous attempts at modeling the costs and benefits of RTO West have shown wide swings in results based on input assumptions. In addition, the TCA study wrongly concludes that a reduction in market prices will benefit consumers in the PNW. Finally, the Northwest is already coordinating, planning and generating in a cooperative manner and it is unlikely that the perceived benefits of an RTO will actually occur.